M E M O R A N D U M

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SUBJECT: Operational Position Statement for the Week of April 16-22, 2013

The U.S. Army Corps of Engineers (USACE) is responsible for managing Lake Okeechobee water levels and makes operational decisions about whether to retain water or release water based on their regulation schedule release guidance. The USACE makes this decision taking into account the best available science and data provided by its staff and a variety of partners, which includes the South Florida Water Management District (SFWMD).

The SFWMD team has discussed the system wide environmental conditions, the water supply conditions, and has evaluated the overall status of the water management system. Detailed reports are available at the SFWMD's Operational Planning internet page.

Recommendation to the USACE

This week the SFWMD again recommends the USACE continue follow the 2008 LORS release guidance to manage the Lake stage. This week Part D suggests releases up to 450 cfs at S-79 and up to 200 cfs at S-80. Part C of the 2008 LORS suggests no releases to the WCAs.

The SFWMD recommends the following:
S-80: no Lake Okeechobee regulatory discharge. Discharge C-44 Basin runoff as required.
S-79: up to 450 cfs per 2008 LORS guidance (USACE's Water Control Plan provides flexibility to discharge 650 cfs at S-79 if they make no Lake regulatory discharges via S-80). Regarding environmental/salinity benefits from Lake regulatory discharges to the Caloosahatchee Estuary, 450 cfs is an adequate flow rate according to SFWMD estuarine scientists.

Further details are provided below, which includes a suggested S-79 baseflow pulse-release pattern from SFWMD estuary scientists.

Weather and Climate

Rainfall during the past week totaled 1.02 inches district wide (through 7 am April 16th). 0.72 inches of rain fell directly over Lake Okeechobee during the past 7-days. District-wide rainfall for the past 30 days totaled 3.29 inches, which was above-average (18% above-average). The Upper Kissimmee Basin received 0.62 inches during the past 30-days and remains about 17% below-average.

The SFWMD short-term weather forecast indicates average rainfall for the next two weeks. The 31-Mar Climate Prediction Center (CPC) outlook for April shows equal chances of above-normal, normal, and below-normal rainfall. For the three-month window April-May-June 2013 the available CPC outlook (21-Mar) shows slightly increased chances of below-normal rainfall for central and southern Florida. Beyond the Apr-May-Jun window the outlooks are for equal chances of above-normal, normal, and below-normal rainfall.

Current Conditions and Operations

The April 15, 2013 Lake Okeechobee stage (reported by the USACE on April 16th) was 13.62 feet NGVD, 0.10 feet lower than last week. The Lake stage is 0.33 feet lower than it was a month ago and is 1.81 feet higher than it was a year ago. The current stage is 0.38 feet below the historical average for this date. The stage is receding and is close to the bottom of the Low Sub-band of the 2008 Lake Okeechobee Regulation Schedule (2008 LORS). The current stage is about 0.12 feet above the top of the Baseflow Sub-band and about 2.3 feet above the Water Shortage Band.

Water supply/irrigation releases from Lake O to the EAA were suspended due to recent rainfall. Releases from C-10A have been made for several weeks and continue. The releases were serving water supply needs of the L-8 Basin, the City of West Palm Beach via the M-Canal, and the Lake Worth Drainage District via S-5AE and S-155A. The SFWMD continues to discharge water from the southern end of the L-8 Canal (S-5AE/S5AW) to provide a dilution flow for water discharge by the Design Build Contractor (Archer Western) for the L-8 Flow Equalization Basin (FEB) {inflow structure, outflow structure and revetment}. The SFWMD expects to continue this operation until the wet season begins.

2008 LORS Release Guidance (Part C): This week Part C suggests “no releases to the WCAs”. The LORS release guidance suggests no releases because the Tributary Hydrologic Condition (THC) is in the dry classification. The THC is determined by the wetter of the Palmer Index and the Lake O Net Inflow, both of which are currently in their respective dry classifications.

2008 LORS Release Guidance (Part D): This week Part D again suggests regulatory discharges up to 450 cfs at S-79, and up to 200 cfs at S-80.

SFWMD Lake Okeechobee Adaptive Protocol (AP) Release Guidance: This week the SFWMD’s Lake Okeechobee Adaptive Protocol (AP) release guidance flowchart suggests no S-79 baseflow releases (estuary salinity for Val-I75 is forecast to remain below the 5 psu threshold for at least the next 2 weeks if no Lake releases are made). However, the SFWMD recognizes that the USACE is making the Baseflow releases consistent with the 2008 LORS in order to manage the Lake stage, which remains in the Low Subband. Therefore the SFWMD supports the USACE’s decision to continue baseflow releases. Please note that the AP release guidance will be the basis for the SFWMD’s recommendations when the Lake stage recedes into the Baseflow Subband of the 2008 LORS.

While the 2008 LORS release guidance suggests baseflow regulatory discharges to manage the Lake stage, there is potential for the releases to have incidental environmental benefits to the Caloosahatchee Estuary. Given the current salinity conditions, it is expected that an average flow rate of 450 cfs using a 10-day pulse pattern at S-79 is adequate to maintain an acceptable salinity regime for the next two weeks. The following release rates & patterns are suggested options.

Day	450 cfs	650 cfs
1	1100	1300
2	1600	1900
3	850	1300
4	500	900
5	350	700
6	100	400
7	0	0
8	0	0
9	0	0
10	0	0

Note that the AP release guidance flowchart was designed primarily to guide release recommendations for circumstances when the Lake stage is within the Baseflow Subband or lower. The USACE's Water Control Plan (WCP) for Lake Okeechobee and the EAA recognizes that the SFWMD may allocate water to the environment through its "Adaptive Protocols" or other SFWMD authorities. The WCP provides guidance as to releases, including Adaptive Protocol recommendations, in the various Lake schedule subbands.

There are two primary branches of the AP release guidance flowchart. The upper branch pertains to the 2008 LORS baseflow (aka, regulatory) releases while the lower branch pertains to environmental water supply releases. It is important to recognize that the AP was developed primarily to guide the water supply balance between Caloosahatchee Estuary, permitted water users, and other water supply purposes of the water control system. The water supply balance achieved by following the AP release guidance was evaluated by the Water Resources Advisory Commission and the SFWMD Governing Board, leading to board acceptance in September, 2010. Final Adaptive Protocols for Lake Okeechobee Operations (September 16, 2010).

For additional information pertaining to operations history and past recommendations, refer to the archives of LORS-2008 Release Guidance outcomes and operational position statements at www.sfwmd.gov under the Operational Planning topic.